

REMARKS

INTRODUCTION

In accordance with the foregoing, no claims have been amended and claim 15 has been added. Claims 1-15 are pending in the application. No new matter has been added.

CLAIM REJECTIONS – 35 U.S.C. § 102

Claims 1-5, 7-12, and 14 were rejected under 35 U.S.C. 102(b) as being anticipated by Wilkinson (U.S. Patent No. 2,338,154) (hereinafter “Wilkinson”).

Wilkinson discloses a fluid-cooled dynamo-electric machine. In Wilkinson, the yoke or field element of the machine is surrounded by an annular shell or cradle element provided at its inner periphery with spaced ribs 26 which extend axially. Wilkinson, page 2, column 2, lines 27-30. The radially inner periphery or edges of all or only certainly spaced ones of the ribs 26 on the annular element are machined to provide a fairly close engagement or positioning of such ribs with respect to the outer periphery of the field yoke 15. Wilkinson, page 2, column 2, lines 66-71.

Claims 1-5 and 7

Claim 1 recites: “...fastening said plate member on the electric motor such that the other surface of the plate member abuts on the outer surface of the electric motor.” In contrast to claim 1, Wilkinson discloses that the field element of the electric motor comes into contact with ribs formed around the inner periphery of the annular shell. Claim 1 recites that the other surface of the plate is in contact with the motor, not a series of ribs as in Wilkinson. An aspect of the present invention is to reduce the manufacturing processes needed to form an effective cooling structure as is accomplished in claim 1.

In Wilkinson, a cooling device is provided in the annular shell or cradle element 25 which serves an outer casing of an electric motor along an outer periphery thereof. Thus, Wilkinson fails to disclose a cooling jacket to be mounted on an outer surface of an electric motor by being fastened by fastening means. Further, the cooling device of Wilkinson includes a plurality of ribs 26 or fins 92 at an inner periphery thereof so as to cool inner space in the electric motor by air circulation. The cooling device is in contact with the armature yoke 15 by the ribs 26 formed at

an inner periphery of the annular shell or cradle element 25. Thus it is not expected to effectively conduct heat generated in the electric motor to the cooling device via circulating air which has low thermal conductivity, in contrast with the arrangement recited in claim 1 in which the generated heat is conducted through a plate member abutting on the electric motor in direct contact therewith by the fastening means.

Claims 2-5 and 7 are dependent on claim 1 and are therefore believed to be allowable for the foregoing reasons.

Withdrawal of the foregoing rejection is requested.

Claims 8-12 and 14

Claim 8 recites: "...fastening means for fastening said plate member on the electric motor such that the other surface of the plate member abuts on the outer surface of the electric motor." In contrast to claim 8, Wilkinson discloses that the field element of the electric motor comes into contact with ribs formed around the inner periphery of the annular shell. Similar to the argument above, Claim 8 recites that the other surface of the plate is in contact with the motor, not a series of ribs as in Wilkinson. An aspect of the present invention is to reduce the manufacturing processes needed to form an effective cooling structure as is accomplished in claim 8.

Claims 9-12 and 14 are dependent on claim 8 and are therefore believed to be allowable for the foregoing reasons.

Withdrawal of the foregoing rejection is requested.

CLAIM REJECTIONS – 35 U.S.C. § 103

Claims 6 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkinson in view of Taniguchi (JP Patent No. 9-201000 A) (hereinafter "Taniguchi").

Taniguchi discusses a refrigerant cooled rotating electric machine where a gap between the inner peripheral plate 3a of the jacket 3 and the frame 2 is filled up with liquid synthetic resin 4p mixed with an adhesive and aluminum powder. Taniguchi, English Abstract.

Claims 6 and 13 are dependent on claims 1 and 8, respectively and are therefore believed to be allowable for the foregoing reasons. Further, claims 6 and 13 recite features that patentably distinguish over Wilkinson and Taniguchi, taken alone or in combination. For

example, claim 6 recites that a resin having heat conductivity is filled between said plate member and said lid member.

NEW CLAIM

New claim 15 has been added to provide an alternate recitation of the present invention. No new matter has been added.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: Sept 13, 2005

By: Gregory W. Harper
Gregory W. Harper
Registration No. 55,248

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501